WISCONSIN WOOD

MARKETING BULLETIN

WISCONSIN DEPT. OF NATURAL RESOURCES

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WOOD MARKETING BULLETIN

The Wisconsin DNR publishes the "Wisconsin Wood" marketing bulletin every two months. It serves the timber producing and wood using industries of Wisconsin by listing items: For sale - forest products, equipment and services, wanted - forest products, equipment and services; employment opportunities. There is no charge for the Bulletin or inserting items in it. Only items deemed appropriate to the timber producing and wood processing industries will be listed. Also the Bulletin will feature forest products utilization and marketing news, safety notes, coming events, new literature, tips to the industry, and listing or employment wanted or positions that are available.

If you know of someone who would like to be on the Bulletin mailing list, please ask them to send their name, address and zip code to the return address on the back page. Also, if you have items to list, send in the form or write a letter to the return address on the back page. Repeat listing of items requires a written request each time the item is to be repeated.

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MIXED OUTLOOK FOR NORTH AMERICAN COMPONENT INDUSTRY IN 2005 By Steve Lawser, Executive Director, Wood Component Manufacturers Association, Marietta, Georgia

Many North American component manufacturers have a positive outlook for the coming year. However, there is still concern over the growth of imported components and finished wood products coming into the U.S. from China, Southeast Asia, Eastern Europe, South America and other low-wage countries. This concern is not going to go away any time soon as imports of furniture, flooring, mouldings and millwork continue to flood North American markets.

North American component manufacturers are caught in the middle as they face direct competition from imported components and indirect competition from imported furniture, moulding and millwork, flooring and other finished wood products. In addition their raw material costs have risen, due to increased demand for North America Hardwood logs and lumber from Asian producers, who use them to produce finished products that are exported back to North American markets.

Component producers who supply the furniture industry have been hurt the most due to a rash of furniture plant closings as U.S. furniture manufacturers import finished furniture and components from off-shore suppliers. As a result, North American component manufacturers have been diversifying away from the furniture industry and are now focusing on products that need to be produced domestically or are not subject to intense import competition. Some of these products include components for kitchen and bath cabinets, high-end mouldings, custom millwork and related building products and a wide range of specialty products including customized gift and novelty items. Companies currently supplying these markets are fairly busy and expect sales to increase in 2005.

Component manufacturers are using their home field advantages and close proximity to their suppliers and customers to overcome the price advantages that off-shore manufacturers have. Many producers of finished wood products are moving to more unique and customized products as a way to compete with the mass produced commodity-type products that are being imported.

There are several other non-price advantages that domestic producers have, such as the ability to fill smaller orders; guaranteed delivery times; ability to reduce their customer's inventory; better communication with their customers; consistent quality; wider wood species selection; and access to high-quality, sustainable forest resources.

Component manufacturers are improving their competitiveness by reducing costs through lean manufacturing, increasing workers productivity, adopting new technology and improving their supply chain management. They are also partnering with customers who are truly innovative in offering more customized products and services.

The WCMA conducts an annual Dimension & Component Market Study at the end of each year to measure what our members anticipate in the coming year. The results from the current WCMA Dimension & Component Market Study indicate that component manufacturers are projecting their component shipments to increase by an average of 6 percent to 8 percent in 2005. Generally, plant capacity utilization rates are improving but they are still down from their highs reached in the late 1990's.

Component manufacturers have invested heavily in yield and productivity improvement equipment and adopted lean manufacturing techniques that have made them more competitive in the global marketplace. Improvements in yield are very important as material costs account for nearly 50 percent of the cost of producing components.

The WCMA's latest Wage & Benefit Survey and Cost-of-Business Survey reported a significant increase in employee productivity with average annual sales per employee of $145,989. This gain in productivity resulted in slightly higher profit margins for the first time in several years. These surveys indicated that gross margins, return on sales, return on assets and return on equity all showed some improvement. Although profit margins are improving, they still remain low compared to other industries.

Labor shortages of higher skilled workers continue to be a problem. The woodworking industry is still losing

skilled workers to other higher paying industries who are moving into the rural areas.

In summary, wood component producers must continually look for ways to be more competitive in today's global martketplace. Globalization will continue to push the industry into custom wood products designed for specific market niches. Woodworkers will be challenged To lower costs, maximize the use of their valuable timber resources, improve productivity and be more effect marketers. Source: *Hardwood Magazine*, January 2005.

THE ADVENT OF THE PAPER MACHINE

In 1798, the Frenchman Nicholas-Louis Robert (1761-1828) invented a prototype of a machine on which paper was formed on a continuous sheet of wire cloth. The invention was patented on January 18, 1799. After Robert, a sergeant-major, left the French army, he had gone to work as a proofreader for the noted printer Pierre-Francois Didot, and was soon placed in charge of the accounting department at son St. Leger Didot's mill in Essones, France. While there, Robert had conceived the idea of a machine to produce a continuous roll of paper to fill the urgent need for banknotes after the French Revolution. St. Leger Didot encouraged Robert to use the mill's workshop and materials in the development of the paper machine.

After five years of work, Robert completed the design and sold his patent rights to St. Leger Didot for the sum of 27,400 francs. Financial difficulties at the mill, however, prevented Didot from paying Robert for the patent, and although Robert eventually recovered ownership, he was never able to realize any money for his invention.

The Fourdriniers

Didot took the models created by Robert to his English brother-in-law, John Gamble, who secured English patent 2487 for an improved version of the machine in April 1801. The improved machine came to the attention of brothers Henry and Sealy Fourdrinier, who engaged engineer Bryan Donkin and built a new and further improved machine in 1807.

Although the Fourdriniers invested up to 60,000 pounds on the development of this machine, they received no royalties because of an error in their patent. They did gain some recognition, however, as most modern paper machines are referred to as "fourdrinier" machines.

Bryan Donkin was the only person who gained financial security from his work on the paper machine; by 1851, he had designed a total of 191 machines, including 83 for British mills, 105 for Europe, one for India and two for the United States.

The First Paper Machines in America

The first fourdrinier machine in the US was imported from England and erected in Saugerties, New York, in 1827. The second was built in Connecticut by mechanic George Spafford. He and his partner, James Phelps, completed the first American-built fourdrinier in May 1829 and sold it to Amos Hubbard at a cost of $2,425.

In 1809, a cylinder-type paper machine was introduced by John Dickinson of Hertfordshire, England. Amid great secrecy, Thomas Gilpin built the first cylinder machine in America at Brandywine Creek, Pennsylvania. It produced a sheet 30 feet wide at a rate of 60 feet per minute.

Source: The Robert C. Williams American Museum of Papermaking, Web site: www.ipst.gatech.edu/amp. *Paper Age*, November/December 2004.

PARK FALLS, WICONSIN PAPER MILL SOLD TO OHIO COMPANY

Milwaukee - SMART Papers of Hamilton, Ohio, has agreed to buy a paper mill that employs several hundred people in northern Wisconsin from Toronto-based Fraser Papers Inc.

The company said it intends to expand production of its high-quality paper products.

Fraser Papers made the announcement in Toronto January 5 of the agreement for SMART Papers to buy the mill in Park Falls, as well as converting, distribution and customer service center in West Chicago, Ill.

Tim Needham, president and CEO of SMART Papers, said the company intends to keep running the Park Falls mill, which Fraser Papers said has 360 workers, Fraser said the West Chicago center has 120 workers.

He said SMART Papers expects to hire a substantial number of those who now work at the mill as it takes over the operation.

The deal must still be finalized, but "we hope to close in under 60 days," Needham said when interviewed.

The Park Falls mill produces the types of paper used for such things as annual reports, product literature, brochures, advertising, digital printing and greeting cards. It also has a pulp de-inking facility for producing paper fiber used to make recycled printing papers.

Needham described the mill's products as "very high-end papers" in quality, which he said would fit in well with the extremely high quality papers produced in Hamilton.

The privately held SMART Papers began operations in February 2001 with the purchase of the Hamilton mill from International Paper.

Fraser Papers is a specialty paper company producing technical, printing and writing papers, with operations in New Brunswick, Quebec, New Hampshire and Maine. As of the end of 2003, it had 3,850 employees.

Source: *The Post-Crescent*, Appleton-Neenah-Menasha, Wisconsin, January 2005.

WAUSAU, WISCONSIN TARGETS GROWTH IN SPECIALTY P & W GRADES

Wausau Papers has completed the $9.6-million purchase of Missota Paper Co. LLC as part of its strategy to grow in higher-margin specialty paper markets through low-cost acquisitions. The company said it plans to restarts the larger 90,000-tpy machine at the Brainerd, Minnesota specialty uncoated free-sheet mill in mid-November, but would "let the market dictate" timing of the startup of the second machine at the 170,000-tpy nonintegrated mill.

"We are committed to putting Wausau Paper on a growth track and will continue to target higher-margin niche and emerging markets," said Wausau president/CEO Thomas Howatt. "The Brainerd acquisition is consistent with that strategy, bringing with it the capability and scale to expand our sales of higher-margin premium printing and writing papers."

The restart of both machines at Brainerd would bring the company's total capacity to around 400,000 tons, an increase of 72%

During the 1990's, an earlier owner of the Brainerd mill (Potlatch Corp.) rebuilt the two machines at a cost of around $100 million. However, Missota Paper, which acquired the mill in early 2003, faced the problem of ramping up the mill in a highly depressed market and also lacked

distribution channels for specialty grades, so it had to rely more on production of commodity paper.

"This looks like a low-cost, low-risk 'bolt-on' acquisition which leverages Wausau's strong market presence in premium printing/writing papers," said analyst Mark Wilde of Deutsche Bank, estimating the acquisition was made at 4 to 5% of replacement cost.

In its recently released third-quarter financial report, however, the company indicated that operating profit of $5.1 million from its printing/writing paper division was "down modestly" from $5.3 million a year ago.

"The recovery in uncoated free-sheet markets, which began in early calendar 2004, has clearly slowed, with volume unchanged in the last several months over depressed levels a year ago." Howatt said in a conference call with analysts. "As a result, we have yet to experience any meaningful pricing leverage in these markets, which has made it particularly difficult to recover higher fiber and energy costs."

He said that without change in mix, the company's prices for its specialty printing/writing paper grades were "flat" compared with a year ago and up 1.5% from the second quarter. He later noted that the apparent strength this year in commodity uncoated free-sheet prices had not reached the specialty premium sector of the market, where capacity utilization is still not at a high level despite significant industry capacity rationalization.

Nevertheless, Wausau Paper has been skillful in expanding in a difficult market. Last year the company grew its overall printing/writing paper shipments 2% and its premium shipments 4% despite an "unprecendented" fourth consecutive decline in U.S. uncoated free-sheet demand and a 9% decline in the text and cover market.

Source: *Pulp & Paper*, December 2004.

TIMBER MEDICS

A new and valuable training course for emergency personnel and loggers by Treena Hein

Researchers at East Carolina University in Greenville, North Carolina, have been developing and studying the effectiveness of a relatively new "Timber Medic" program, a one-day course created (and copyrighted) in 2001 by paramedic/instructor Pete Stevenson. Although the course is available across the country, to date it has been used only in North Carolina. Other states may not yet be aware of the program, although funding is being pursued for expansion of the program.

Dr. Juan March, head researcher, says that "nationwide, there have been education programs to try to reduce forestry deaths, but they have been unsuccessful for a decade." Hopefully, the study Dr. March's team has been conducting on the effectiveness of the Timber Medic program will show better results. To reach their conclusions, researchers are using pre- and post-course testing of participants in addition to a review of medical records in areas where the course has run.

Course participants become much more familiar with the logging scene—the equipment used in the bush and the types of accidents that occur. Additionally, the course prepares medics to more accurately assess the many hazards of a logging operation upon arrival, and then take the best course of action—together with the loggers—to save lives or minimize the impact of injury.

Because the logging is one of the most dangerous occupations, this is obviously a course whose time has come, and researcher Jane Pollock points out that the course is also of value for people cleaning up in hazardous areas created by storm or hurricane destruction such as the recent situation in Florida. "Hurricanes can upturn a whole tree", says Pollock. "When you cut it, the root-ball can get sucked right back down into the hole, with a person along with it."

Course Content

Available to loggers, firefighters, EMS personnel, and anyone else who has an interest, the Timber Medic program consists of a four-hour theory component followed by a trip to an actual logging site for a four-hour field component. Jesse Harris, Jr., a medic who took the course this year, says the theory part included "slides of the machines and a discussion of the hazards associated with each. Then there was additional conversation about possible illnesses and injuries that may be seen in the woods."

Medical trauma as well as the dangers of a logging site are covered in detail because "they are the major factors that make logging the most dangerous occupation," according to Dr. March. Hazards include equipment, blind zones, half-fallen trees, springpole trees, log piles, snakes, etc. Participants also learn how to use directions to locate a logging accident victim. A helicopter evacuation crew gives instructions on how to set up a landing zone and how to assist a crew once it has landed.

Pollock considers the ride out to the bush between the theory and the practice sessions very important in evaluating the types of roads, terrain, and the distances. "They get to see what it's like to get to one of these accident sites," she notes. "You have no idea how large the equipment is until you stand there beside it. Pictures don't have any impact." Dr. March adds that "it really is an eye-opener to go to a logging site and see how it functions."

The field component involves training with logging equipment and interacting with loggers, who act as first responders in simulated rescues. Harris says that one scenario involved "a logger who had a tree fall on him where the tree had to be removed, using precautions for his safety. Then he had to be treated and carried out of the woods about a quarter mile. There was also a section on working with the Eastcare helicopter, which is the helicopter used here for air transport to the trauma center at Pitt County Memorial Hospital. This class had to set up a landing zone for the helicopter and practice loading a patient into the helicopter.

Benefits

Because EMS personnel are always very focused on the patient in any situation, Pollock says that going through the "Timber Medic" course will make these same medics better realize "where they are and what the hazards are. To be tuned in to the dangers of the environment is important. We don't want the EMS person getting injured." Furthermore, the medic will give more consideration to factors that are not part of a normal call. For example, loggers may have to take the medic and his or her supplies to the scene in a 4-wheel-drive vehicle, or on an ATV,

Birke County in North Carolina was the first county in that state to have their emergency personnel undergo "Timber Medic" courses, offered by Western Piedmont Community College. A paramedic who took the program there says that during the simulations "we got to see what the loggers had done in terms of first aid and work with them, making it much easier to do the extraction of the victim. We now have a much better idea of the hazards when we enter a site and know what we're looking for."

In Jesse Harris's mind the biggest benefit "is equipment familiarization.

Everyone kept saying, 'I didn't know this stuff was so quiet and so fast.' Hopefully, this class will spread throughout the country to other areas. It will have to be adjusted due to the variations in logging across the country, but the basics will be the same."

In Canada

While there is no exact equivalent to the program in North Carolina, there are a few initiatives up north that are making logging safer. In the Algoma region of Ontario near Lake Superior, logging companies have agreed to tie cutting rights to the maintenance of over 60 helicopter landing sites. Each numbered site has a fact sheet with directions ground for air ambulance to get there. The sites can also be used as reference points to get to a nearby victim. Mike Zanatta, safety coordinator at Meakin Forest Products, has been one of the main organizers behind the initiative. "The policy stemmed from an accident in the bush over seven years ago." he says. "It is internally funded by the lumber companies contributing personnel time. We realized we could keep incidents from being fatalities if we could get the quick response."

Although helicopters are by far the best method of responding to accidents, they aren't always put to their full use. Jocelyn Bourgoin, a paramedic in Thunder Bay, says that if someone is bleeding, "people won't wait unless a helicopter is close, but they should. They need proper first aid, and it's hard to control bleeding going down dangerous roads with the victim's heart rate and blood pressure up." Additionally, helicopters can't fly at all in bad weather, nor land on the bush sites at night because of safety regulations.

In western New Brunswick, emergency services use a system of grid maps of the forest to locate victims. To call for help, loggers use two-way radio in addition to a few cell phone boxes placed on hills, that can be reached by tower signals. Paramedic Tara Watson points out that there are no rescue helicopters in this province, and it is important that loggers are well trained in first aid. She makes sure to look at the situation from their perspective. "I teach them to use branches and rags." She says, "because they don't have splints and stretchers like we do."

While British Columbia does have helicopters to use in logging emergencies, the situation is unique in Canada because of the huge distances from logging sites to civilization. Emergency personnel meet the patient en route, at a logging camp or airport, and then accompany him or her to a major city in an airplane. The isolation of the logging operations means that each one must have highly qualified first-responder loggers who pass through three levels of training. Level 1 is a one-day course for smaller crews, Level 2 is a one-week course, and Level 3 is an additional two-week course, required for those working two or more hours away from medical aid. Level 3 graduates are trained in packaging and evaluation of a victim, as well as communication with emergency personnel until they are met along the way.

Learn More

Any state can get an instructor to present the Timber Medic course, and an instructor's course is also possible. Pete Stevenson is willing to travel anywhere there is interest in the instructor's course, in order to get the program off the ground; he asks for traveling expenses only.

For more information, go to the North Carolina Forestry Association at www.ncforestry.org (choose "Logging and Transportation," "Continuing Education," and "Courses offered by the NCFA").

Resource-sharing website – www.ruralmedics.com.

To find out about the Timber Medic study, go to www.ncgromedicine.org/Timber_Medic.htm.

Source: *Sawmill & Woodlot*, December 2004.

WORKING ALONE

By Eric A. Johnson, Executive Editor

Like most of the people reading this, I suspect, I've spent quite a bit of time over the years working in the woods alone. In fact, that's really the way I like it. One benefit of working solo is that you have plenty of time to think things through without being distracted by someone else getting in the way – or maybe worse yet – you getting in their way.

One of the things I think about a lot when I'm out there all by myself (lately it's been cutting firewood with a pickup and a chain saw), is safety. Can't be too careful, I keep telling myself. I make a point of knowing exactly where my feet and legs are in relation to the saw, wear all the right personal protective equipment, and try not to do stupid things for the sake of convenience. I carry a cell phone, since there's a good signal where I'm working. And I turn the truck around and leave the keys in the ignition, just in case I have to get out of there in a hurry. I also make sure that someone knows when and where I'm working, and I always call my wife as soon as I leave the woods, mostly so she knows when to quit worrying.

The occasional near-miss – or more frequently, noticing an obvious hazard – both serve as valuable, regular reminders that the woods is a dangerous place. I've been told that Soren Erickson, the great Swedish chain saw instructor who is now retired, doesn't even like to walk in the woods anymore, much less get out there with a chain saw and make the wood fly. It's more than a little chilling that the same guy who convinced many of us that working more safely in the woods was a reasonable idea, has suddenly (allegedly) lost his nerve. Or, you could argue, maybe he's finally come to his senses.

I've come up with a pretty simple theory about logging safety, and it will be interesting to see if anyone else agrees. The way I see it, your chances of getting hurt in the woods are lower if you work alone, but your odds of surviving a serious injury are also lower. So, it's a classic trade-off.

One way to look at the situation is the car/plane analogy. The chances of being involved in a car accident are much greater than going down in a commercial airliner, but the likely consequences are different. When you climb into a car, part of your brain knows that your trip could end with an accident. But you do it anyway. When you get on a plane, you know that any accident, however unlikely, will be your last. You sit and enjoy your peanuts anyway. Most of us accept the risks and get on with our lives.

The thing that haunts me about working in the wood – alone or with someone else – is knowing that much of your fate is beyond your control. You can take all the precautions in the world and still wind up killed or maimed. Like you, I've deemed that to be an acceptable level of risk, but that doesn't make it any more pleasant to think about.

And that doesn't apply to just manual logging either. I know one logger who mechanized in large part for safety reasons. The cab of a processor, he concluded, is a much safer work environment than being on the ground with only a hardhat for protection. One day he stepped out of the cab of his Timbco and was hit and severely injured by a falling branch. That's the kind of thing I loose sleep over.

Whether you work alone or with others, being constantly aware and thinking about

safety every chance you get, is the best defense you have against being killed or injured. And maybe that's where a fresh set of eyeballs can really pay off. Several years ago I attended the dedication of a demonstration forest. Extensive preparations had clearly been made for the event, and the log landing, where the ceremony was held, had been cleaned up, seeded and otherwise made presentable.

The only problem with the work was that a big widowmaker was left hanging in a tree directly above the podium. As the dignitaries gathered around for the ceremony, somebody noticed the hazard, and the podium was quickly relocated to a safer spot. Everyone involved in planning the event – most of whom were experienced foresters, loggers and others – was pretty embarrassed. Well, not as embarrassed as they would have been if the branch had fallen on the crowd. I chalked it up as one of those things that happens; it took someone who had never been to the site before to notice the obvious.

So while I still think that working alone in the woods is an acceptable, reasonable choice to make, I also think it's a good idea to involve a number of other people in the process. Call it a support group if you like. At minimum, you need somebody who knows when and where you will be working, who is willing to seek help if you don't call or show up as expected. That help might come in the form of another person who can drive out and check on you if you're a no-show, and then do whatever is necessary depending on what they find.

And, as the uninvited widowmaker at the ceremony suggests, you or someone else should get into the habit of looking at your worksite from a new perspective. The widowmaker, snag or other hazard that you ignore or fail to see, could be the one that gets you.

Source: *The Northern Logger & Timber Processor*, November 2004.

GLEN OAKS MAKES IMPROVEMENTS AT WISCONSIN, KENTUCKY PLANTS

Capital investment and expansion at its millwork facilities in Montello, Wisconsin and Somerset, Kentucky are the latest developments in the history of 25-year old Glen Oak Lumber & Milling, Inc.

At 29,000 sq.ft., GOLM's Mill 3 in Montello houses three molding machines and represents an investment of $1 million. It produces high quality hardwood molding, and shutter components and also houses a rough mill, profile sander, dust collection system and knife grinding facilities. Improved efficiency and turnaround time are key developments.

Benefits are also being realized at Montello Mill 2, which previously housed Glen Oak's Midwest molding operation, rough mill and other departments. Moving the molding unit to the new plant freed up 12,000 sq.ft. for future improvements. Mill 2 enhancements are already lined up and new equipment has been ordered.

At Somerset, the company recently invested $2 million in a dedicated 50,000 sq.ft. paint priming building, a third prime line, a proprietary primer and the rebuilding of two existing lines.

Source: *Southern Lumberman*, January 2005.

PURDUE PROFESSORS: DON'T USE BLACK WALNUT SHAVINGS FOR ANIMAL BEDDING

A research paper co-authored by two professors at Purdue University strongly advises against the use of American black walnut wood shavings for animal bedding.

Daniel Cassens, professor and extension wood products specialist, and Stephen Hooser, head of Purdue's toxicology section, write, "There have been numerous reported cases of black walnut (Juglans nigra) poisoning resulting in laminitis in horses. Typically, these occur through exposure of horses to black walnut shavings used at bedding in stalls. As little as 10% of the total shavings, by weight, can result in clinical signs of toxicity in horses. These generally occur within 24 to 48 hours of exposure to contaminated shavings."

According to the authors, the severity of laminitis in horses exposed to black walnut residue can range from a mild swelling of the legs of all four limbs, pitting edema of the ventral abdomen and colic.

"In many cases, wood shavings and sawdust are considered residues by the wood industry and the manufacturer simply wants to dispose of it by giving it away to an end user or to an intermediate party that processes and markets it," the professors note. "Therefore, it is suggested that bedding be purchased or otherwise obtained only from reputable suppliers who are aware of the relationship between black walnut and laminitis….Because of the possible severe consequences of poisoning, stall bedding for horses should never contain black walnut wood."

Visit www.agriculture.purdue.edu for more information.

Source: *Wood & Wood Products*, December 2004.

OCTOBER HOUSING STARTS RISE 6.4 PERCENT TO 2.027 MILLION PACE

U.S. housing starts rose 6.4 percent in October to the highest level of the year, suggesting housing is helping drive economic growth, a government report showed. Builders broke ground on 2.027 million residential units at an annual rate during October, up from a revised 1.905 million in September that was higher than originally reported, the Commerce Department said. The level of building permits, a sign of future activity, fell 0.7 percent to 1.984 million.

Mortgage rates that have stayed below 6 percent since July are keeping interest in home buying near record levels. October's data suggests housing will continue to contribute to economic growth through the end of 2004. "Housing demand remains quite healthy," Elisabeth Denison, an economist at Dresdner Kleinwort Wasserstein in New York, said before the report. "The housing sector is still one of the strongholds of the economy." Denison forecast starts would rise to a 2.02 million rate.

Residential construction slowed to a 3.1 percent annual rate of increase last quarter, adding 0.18 percentage point to overall economic growth. From March through June, housing construction rose 17 percent and contributed 0.86 percentage point. The economy grew at a 3.7 percent annual rate in the third quarter, less than expected, as rising oil prices contributed to a record trade deficit and companies added fewer inventories.

Starts of single-family homes rose 5.7 percent in October to a 1.645 million-unit pace after a 1.556 million rate a month earlier. Starts of townhouses, apartments and other multifamily dwellings rose 9.5 percent to a 382,000 annual rate. By region, starts rose 4 percent in the South to 932,000 at an annual pace; rose 5 percent in the West to 525,000 and rose 8.6 percent in the Midwest to 390,000. They surged 20 percent in the Northeast to 180,000.

Source: *The Northern Logger*, December 2004

LEVELING THE GLOBAL PLAYING FIELD WITH EDUCATION, Manufacturers, vendors and customers must sometimes think inside the box by Steve Ehle

To concur that the U.S. wood products industry is made up of disparate, disconnected and sometimes divided individuals and groups requires no leap of faith.

At a recent IWF-Atlanta meeting of theWoodworking Industry Leadership Forum (WILF) – an informal coalition of industry association leaders, machinery vendors, educators, trade journalists and others – the fact that the industry is non-cohesive, if not polarized, was driven home.

After nearly two hours of discussion relating to finding common goals and challenges, little was agreed upon, other than the fact that the wood industry is diverse and something should be done to bring everyone together for their common good: education.

Speaking recently to a group of manufacturers, educators, researchers and others, Wood Machinery Manufacturers of America executive vice president Ken Hutton, an organizer of the WILF group, reflected on that meeting and paraphrased recent statements by Forest Products Society president Paul Winistorfer in a recent article in *Wood Digest:* "The wood processing industry does not represent itself well. Those same product-centric and geographic forces that serve as a basis for groups coming together keep us divided. The politics of each association's narrow agenda prevent us from speaking with a common voice or venue from which to establish a platform to advance the collective good and educational needs of the wood industry sector."

A major component of this successful global competitive scenario, Hutton says, is an educated, skilled and highly motivated workforce.

Common Goals

The New Orleans conference, sponsored by the Forest Products Society and a number of other groups and trade publications, was titled "Manufacturing Competitiveness of the Forest Products Industry," About 20 speakers addressed a myriad of topics relating to the wood industry.

One common theme was the importance of training and education in the all product sectors that make up the wood industry. In his address, "Workforce Development and Education," WoodLINKS USA national program director, Wilf Torunski, had this to say:

"In the secondary wood section, industry surveys have ranked a lack of skilled workers as a top priority for quite a few years, and manufacturers claim that entry-level graduates have serious shortcomings…To address this, we must encourage industry leaders to agree to work together toward finding a funding solution for this national wood products industry priority."

Source: *Wood Digest*, December 2004

AVOIDING CORROSION IN TREATED WOOD By John Fullerton, NFBA Vice President

We all know that the new types of treated wood are about twice as corrosive as CCA. But what do we do about it?

Manufacturers of new wood preservative chemicals that are rapidly taking the place of CCA are quite specific in their recommendations regarding unpainted galvanized or Galvalume panels – generally, it should not be in direct, long-term contact with wood that contains ACQ, copper azole, or other new water-based preservatives. The new formulas contain about twice as much copper as CCA does, and copper is a radical free agent that may accelerate corrosion of steel and aluminum.

But what if there is a coating on the panel? What kind of paint or other coating is effective enough a barrier to keep the copper from corroding the panel? How much galvanic coating is adequate for fasteners and panels? What if you drill through the panel to insert a screw or there is a cut edge that may butt up against the wood – is the barrier's effectiveness compromised? What is the effect of different retention levels of treating chemicals in the wood itself? If the wood is kept dry, will there even be a corrosion problem?

A post-frame builder may be left wondering what to do when he's ready to screw a panel onto his next building. Although a few experts have a pretty good idea of the answers to these questions and more, the jury may still be out on all of them – so far, not all the experts seem to agree and many are still conducting research before they will offer a guess as to what will or won't reduce the corrosive effects of the new generation of treated wood.

Panel and fastener manufacturers stand behind their products, and feel that corrosion is not something to be concerned with as long as builders follow their recommendations. We have heard reports that the formulas are constantly improving, and becoming less corrosive. Tests conducted by various parties do indicate, however, that there is still a difference in the corrosiveness of the new generation of treatments when compared to CCA.

Wheeling Corrugating recently conducted a study to determine what kind of a barrier may be effective in preventing the chemicals in question from causing corrosion on wall panels. Their preliminary research, conducted by H. L. Stauver of Touchstone Research Laboratory, LTD, in Triadelphia, W.Va., concludes that:

Water and ice shield material was most effective in preventing a corrosive reaction between any of the steel products tested and either type (ACQ and copper azole) of pressure-treated lumber. Effectively, there was no surface damage where the water/ice shield contacted the metal or painted surfaces. The use of 30-pound roofing felt was somewhat effective in minimizing the corrosion of the various steel products, but does not appear to offer substantial improvement over direct metal to wood contact. Direct contact with the pressure-treated lumber grades had the anticipated effect of corrosion on both the galvanized products and two of the painted steel materials in that the paint and the base steel were damaged by direct contact with the treated lumber …it is recommended that all galvanized be protected with water/ice shield membrane or with a similar product in any construction.

Steelscape recently announced they had found that application of a "resin coating" was effective in curbing the corrosive effects of new wood treatments. However, these coatings may not permanently remain on the panels. A published report of their research and specific recommendations are not yet available. U.S. Steel and Steelscape technical contacts both reported their concern that the tests being used today to determine long-term corrosive action are not reliable predictors of what may actually happen in real life. Cyclic water spray tests may create conditions that are more corrosive than actual climate conditions, if there are animal feces or other chemicals in the soil, actual conditions may lead to results that may be worse than the test; a salt-spray

test may lead one to believe the new treatments are highly caustic – but few of us have buildings in areas regularly wetted by saltwater.

The issues are complex and answers to basic questions remain daunting. What's a post-frame builder to do?

Well, that's one question I do have a sure answer for: Go to Frame Building Expo, February 23-25, in Columbus, Ohio! The Expo is the only place in the nation where this issue will be discussed in-depth by and for post-frame industry professionals. There will be educational sessions and a panel discussion focusing on what builders can do to minimize the corrosive effects of new wood treatments on post-frame buildings.

Hear experts debate what kinds of fasteners and coatings are acceptable, weigh the pros and cons, and decide for yourself what options best suit your business.

If you are not on top of this issue, it may well haunt you and your business in a bad way for a long time to come. Don't miss the boat on this and other important industry issues. For more information, call (800) 557-6957 or visit www.nfba.org.
Source: *Frame Building News*, January 2005

U.S. DEMAND FOR KITCHEN CABINETS IS PROJECTED TO INCREASE BY MORE THAN 6 PERCENT

A new report on the American kitchen cabinet market from the AKTRIN Furniture Information Center says U.S. demand for cabinets is projected to increase more than 6 percent per year through 2008 to more than $16 billion. Advances will accelerate from the pace of the 1998-2003 period as a result of stronger expenditures for residential repair and improvement projects, which constitute the single largest end use for cabinets.

Changing consumer preferences in cabinet design toward more elaborate designs and materials will also aid cabinet demand. U.S. cabinet shipments will rise 6.1 percent annually through 2008 to $15.6 billion.

Additionally, a recovery in the new nonresidential construction market will bolster gains through 2008. Building design trends that lead to greater cabinet usage per residence will also boost new residential cabinet growth.

However, a weak new housing environment, highlighted by declining single family home completions, will temper demand for cabinets.

Larger kitchens and design trends to spur demand for kitchen cabinets.

Kitchen cabinets will continue to dominate the U.S. cabinet industry, accounting for more than 80 percent of the total in 2008.

Kitchen cabinets will benefit from a continuing trend toward using more cabinets to provide increased utility, as well as by expanding range of kitchen cabinet styles and options. Gains will also be aided by patterns in new construction, including larger kitchens and design trends. The rising use of kitchen type cabinets in other rooms of the home (e.g. laundry rooms and media rooms) will also aid increased.

For more information go to http://furniture-info.com/1320.htm on the Web.
Source: *Wood Digest*, January 2005

WISDOM ON WOOD by Stephen Bratkovich

Aldo Leopold (1887-1948) is known by conservationists for many things. For example, he led a national crusade for wilderness establishment: he founded the profession of "game management"; and he authored the influential conservation book *A Sand County Almanac*. Many who read Leopold's writings are unaware that he was trained as a professional forester (Yale 1909). Fewer still realize that during the mid 1920s Leopold served as the assistant director of the U.S. Forest Products Laboratory in Madison, Wisconsin. During his tenure at the lab he helped oversee research on related subjects such as wood utilization, wood properties, and forest products conservation. In 1928, he published an article titled "The Home Builder Conserves," to reach the "thinking conservationist" on the proper utilization of wood. In the article, Leopold described how the practices of homeowners (consumers), manufacturers (producers), and distribution (retailers) can encourage forest conservation. His words from the Roaring Twenties still ring true today in the 21st century.

In the "Home Builder" article, published in *American Forests and Forest Life* magazine, Leopold wrote, "Forest conservation depends in part on intelligent consumption, as well as intelligent production of lumber. Intelligent lumber consumption depends on overcoming misinformation and prejudice…and supplanting it with scientific information and a real understanding of the properties of wood." Leopold was concerned that the average homeowner was not getting good advice from retailers when making lumber purchasing decisions. Leopold correctly noted that industrial functions – steps in the manufacturing and distribution process – had become highly specialized. He explained, "There are any number of retailers who have never seen a sawmill, who do not know the forest trees from which lumber is cut, and who are far from posted on the utilization problems bearing on forest conservation."

Leopold cited another example – which is still applicable in the 21st century – of the insistence of many on clear hardwoods for furniture and interior woodwork. He explained that colonial craftsmen did not worry about a sound, tight knot on the face of a walnut dresser. In fact, knotty pieces were often preferred for their ornamental effect. Leopold pointed out, however, that the biggest part "of our enormous hardwood waste occurs in the process of trimming out knots." Leopold writes, "Is it too much to hope that fashion may some day lift the ban against sound knots in place where they enhance the beauty of the wood and do not injure strength?"

Leopold also had comments for sawmillers as to how they could contribute to the conservation movement by producing "small dimension stock." He explained that too many manufacturers use wide, long, clear boards to make products requiring small pieces of wood. Referring to small pieces, he stated, "They could just as well be cut at the sawmill from low-grade boards, slabs, edgings, and wood waste. Cutting these pieces from mill and wood waste would release the wide, long boards for uses where they are really necessary." Additionally, he argued that consumers could do their part "by patronizing the firms which sell goods from such stock."

Leopold concluded his though-provoking article with a final thought on what the nation could do to prevent "forest waste." He said, "Even the thinking citizen is too apt to assume that his only power as a conservationist lies in his vote. Such an assumption is wrong. At least an equal part lies in his daily thought, speech, and action, and especially in his habits as a buyer and user of wood."

Aldo Leopold died over a half-century ago while fighting a brush fire on a

neighbor's farm. Fortunately, his conservation philosophy – including is wisdom on wood utilization and forest conservation – remains alive though his published words.
Stephen Bratovich is a forest products specialist in St. Paul, Minnesota. He is a member of the Forest Products Society and the Society of American Foresters.
Source: *Sawmill & Woodlot*, January, February 2005.

THE TOP TEN ENVIRONMENTAL BENEFITS OF FORESTRY

Forestry is brining back forests. Until the 1920's forests were often logged and abandoned. Now, across the country an average of 1.7 billion seedlings are planted annually. That translates into six seedlings planted every tree harvested. In addition, billions of additional seedlings area regenerated naturally.
Forestry helps water quality. Foresters carefully manage areas called watersheds (areas where we collect our drinking water) riparian zones (land bordering rivers, streams, and lakes). These are places where maintaining water quality is the primary concern for foresters. Forests actually help to clean water and get it ready for us to drink. The trees, the soil, and bacteria are all part of this process. Forest cover protects and nurtures the soils that are the key to water retention, filtering, and quality.
Forestry offsets air pollution. Foresters nurture forests, which are sometimes called "the gills of the planet." One mature tree absorbs approximately 13 pounds of carbon dioxide a year. For every ton of wood a forest grows, it removes 1.47 tons of carbon dioxide and replaces it with 1.07 tons of oxygen.
Forestry helps reduce catastrophic wildfires. At the turn of the century, wildfires annually burned across 20 to 50 million acres of the country each year. Through education, prevention, and control, the amount of wildfires has been reduced to about two to five million acres a year – a reduction of 90%. By marking and removing excess fuels, such as underbrush and some trees, foresters can modify forests in order to make them more resilient to fire.
Forestry helps wildfire. Foresters employ a variety of management techniques to benefit wildfire, including numerous endangered species. For example, thinning and harvesting create conditions that stimulate the growth of food sources for wildlife. Openings created by harvesting provide habitat for deer and a variety of songbirds. Thinning can be used to accelerate growth and development of older trees that are favored by owls and other species. In order to enhance salmon habitat, foresters also carry out strategic tree plantings, and monitor forest health along streams in order to keep the water cool and reduce sediments.
Forestry provides great places to recreate. Foresters manage forests that provide recreational benefits to communities. Forests are important areas for such recreationists as birdwatchers, hikers, nature photographers, horseback riders, skiers, snowmobilers, and campers. And because foresters put water values high on their list of priorities, the rivers and lakes in forested areas provide such recreational opportunities as fishing, canoeing, and rafting.
Forestry benefits urban environments. Urban foresters manage forests and trees to benefit communities in many ways. Forests in urban areas reduce stormwater runoffs, improve air quality, and reduce energy consumption. For example, three well-placed mature trees around a house can cur air-conditioning costs by 10-50 percent.
Forestry provides renewable and energy-efficient building products. Foresters manage some forests for timber and produce a renewable resource because trees can be replaced. Other building materials, such as steel, iron, and copper, can be reused and recycled but not replaced. Wood is a renewable resource which, in addition to being recyclable, can be produced anew for generations to come on sustainable managed forestlands. Recycling and processing wood products also requires much less energy than does the processing of many other non-renewable materials.
Forestry helps family forests stay intact. Foresters help family forestland owners, who own 54 percent of all the forests in the US, understand the benefits of managing their forests in an environmentally friendly manner. Better management of private forests means that those forests will remain health and productive. Many endangered species spend at least part of their time on private land, more than 80 percent of our nation's total precipitation falls first on private lands and 70 percent of eastern watersheds run through private lands.
Forestry is good for soils. Foresters and natural resource managers are dependent on forest soils for growing and managing forests and, to a large extent, forest soils are dependent on resource professionals and managers. Foresters' success in growing forests and producing forest products is dependent on their ability to understand soil properties and to then match species with soils and to prescribe activities that not only promote forest growth but also enhance and protect soil productivity and prevent soil erosion.
Source: *TPA*, December 2004.

Publications

Coming Events

A FORTUNE IN THE FOREST

A conference on non-timber forest products. James Williams Junior High School, Rhinelander, WI, April 9, 2005

Whether it's balsam bough harvesting, maple syrup collecting, or the gathering of some other kind of forest product, a growing number of people are taking advantage of opportunities that exist within Wisconsin's forests for enjoyment and personal income. If you fall into this group, then this conference is for you!

The conference will provide participants with information on a wide variety of ways to utilize forest resources for the production of a number of different products. Additionally, participants will have an opportunity to learn how they can market their products and make their business a success.

For more information about this conference, visit our website at http://basineducation.uwex.edu/woodland/conference/ntfp.htm or contact Bill Klase, US-Extension Basin Educator Iwilliam.klase@ces.uwex.edu, (715) 365-2658). Colleen Matula, WIDNR Forest Ecologist (715) 358-9208), or Don Peterson, Renewable Resource Solutions, (715) 528-5579).

The fee for this conference is $25 and includes lunch, snacks and a packet of materials. If you are interested in attending this conference, send your name and address along with $25 for each person that will attend to:

A Fortune In the Forest
Oneida County UW-Extension
3375 Airport Road
Rhinelander, WI 54501

Space is limited to the first 200 participants, so please register early!

This conference is sponsored by the Partners in Forestry woodland owner cooperative, WI Department of Natural Resources, and UW-Extension.

EXPO 2005 Seminars Announcement

FPS-Sponsored Technical Seminars at the Forest Products Machinery & Equipment Exposition, Georgia World Congress Center, Atlanta, Georgie, June 23-25, 2005

A comprehensive series of eight Seminars, sponsored by the Forest Products Society and the Southern Forest Products Association, will be offered in conjunction with EXPO 2005. These seminars are designed to complement the displays of equipment and machinery, offering practical information that can have a direct impact on your operation. There are six Technical Seminars and two Logging Seminars. Each seminar is repeated over a three-day period. The registration fee for each of the Technical Seminars (T1-T12) is $55. Logging Seminars (L1-L4) are $25 per seminar. Space is limited and registrations will be accepted on a first-come, first-served basis.

To view and print the publicity brochure and registration form (PDF format), please visit FPS on line http://www.forestprod.org/sfa05bri,pdf.

FOR SALE

Timber and Forest Products

Black Walnut poles from a thinning. There will be about 400 stems averaging 5.5 inches dbh and for most, 9 to 12 feet of clear stem. Many are straight. These could be fence posts and rails, firewood, canes, dowels, rustic furniture or made into craft items. Harvesting can be negotiated. I prefer harvesting to occur over 2-3 years. Easy access. Trees are in southern Wisconsin, just north of Delavan Lake. A visit can be arranged. Contact John Buzzell, 500 East Marylyn Avenue, G-107, State College, PA 16801 at (814) 237-1401 or Foreststew@aol.com.

Cedar lumber cants, tops, paneling, fencing, 4x8x8, 6x6x8 or cut in the dimension you need. Excellent cedar and good prices. Leave message. Billy Inhof, (218) 278-4417

Plywood, OSB, particleboard, and/or MDF cut to size or shape according to your specifications. From high-end uses like furniture and architectural to lower grades suitable for boxes or pallet decks. Plywood blocks for pallet are also available. Joe Campbell, Steel City Lumber Company, P.O. Box 36189, Birmingham, AL 35236 (800)733-1907, FAX (205) 733-1709, E-mail Joecampbel@aol.com

We manufacture wood items to customers specification, such as dowels, plugs, wedges, blocks, handles, knobs, legs, mouldings, balls, bases, rollers, spools and shaping. Visit our newly created web site at www.americanwoodworkingco.com Contact American Wood Workings Co., Inc., P.O. Box 335, 263 Church Street, Montello, WI 53949, phone (608) 297-2131, FAX (608) 297-7124

Long pine timbers and peeled poles 50' + shtr. Most any size available. Contact Paul Myszka, Phelps Wood Products, 1409 Highway A, Phelps, WI 54554, (715) 545-2512, FAX (715) 545-2944.

46" x 28" used skids in very good condition. 1/8" x 7" x 13 ¾" x 1/8" , 6" x 13 ¾ hardboard cutoffs. Kiln dried hardwood dowels, several sizes and quantities. New Lisbon Wood Products, 1127 South Adams, New Lisbon, WI 53950 (608) 562-3122

Equipment

Jackson Hydraulic Log Turner – with stinger type arm, precise turning, with pusher. Contact: Jackson Lumber Harvesting Co., Inc., 830 N State Road 37, Mondovi, WI 54755, Phone (715)926-4545, www.jacksonlbrharvester.com

Bark Processing Plant: conveyor and hopper infeed, first big roller screen, Patz chain conveyor under screen, Patz inclined chain conveyor, second roller screen with conveyor transfer, 40' Patz inclined chain conveyor, nugget conveyor, all required electric motors, starters, switches, wiring, etc. Contact Rush Equipment, 400 Rusch Road, Antigo, WI 54409 Phone (715) 627-4361 FAX (715) 627-4375

Rope wich wipers hand or boom – tanks for H2O fire protection. We can assist in chemical/fertilizer and planting attachments. Contact Lewis White at (920) 623-3827 or 5055.

37" 2 head Cemco wide belt sander, $4,700. Model JRF-37-75. Mfg. 1982. 30 hp first head, 20 hp second head. Has electronic belt oscillation, variable speed feed belt, pro scale digital thickness gauge, amperage gauges for both heads, power table adjustment, emergency shut down switches on front side of machine. Uses 37" x 75" belts. Approximately 30 used belts included. Many good years left on this machine. It has run great for us during the 8 years we used it. For pictures, go to our website www.BerkshireProducts.com/sd1002.htm. Contact: Berkshire Products, Inc. P.O. Box 591, Sheffield, MA 01257 (413) 229-7919

Fence board made to order. Also paneling grade lumber and flooring. F&N Mills, Boscobel, WI 53805 (608) 537-2306

Franklin 132 x L forwarder. Perkins engine and hood loader, '91 Ford logger van. John Marquardt, Tigerton, WI (877) 583-6303

Chop saw – grade go round – de-duster – resaw – scrugg saw. Contact Up Country Manufacturing, N6642 River Road, Wittenberg, WI 54499 (800) 854-7439.

Three point hitch farmi winch,Valby chipper, forwarding trailers and loaders (various sizes) logging chain and cable. Arrowhead Wood & Forest Services, Dave Grinnell, 1592 Olsonville Rd, Carlton, Minnesota 55718, (218) 384-3325

Wood saving baylers and bagging equipment, call for price, Dave, Isanti, MN (763) 444-4747.

Latest serial number original factory iron mule forwarder 4000f, 3 cylinder diesel engine with 1400 original hours. Machine

is in excellent condition with united forestry tires and a 4500 loader. Machine has manual transmission and quick coupler hoses for cold weather. For more information please call Michael Biller, Winter, WI, (715) 266-3151 after 7 PM.

Highway 29 and 71 intersection. Cataract sawmill, 3 phase office, 10.3 acres. Hogger, chip sheds, scale, dust building, cement maintenance building, 100 x 100 steel truss sawyer building, 5,500 square foot dimension building, zoned general forestry. Contact Bruce Kilmer, 920 west Wisconsin Street, Sparta, WI 54656, (608) 269-7777, e-mail bakdeu@front/ernet.net

Bark Processing Plant – conveyor and hopper infeed, first big roller screen, Patz chain conveyor under screen, Patz inclined chain conveyor, second roller screen with conveyor transfer, 40' Patz inclined chain conveyor, nugget conveyor, all required electric motors, starters, switches, wiring, etc. Contact Dixon-Rusch Co., Inc., 400 Rusch Road, Antigo, WI 54409 (715)627-4361, FAX (715) 627-4375

Planer: 6" x 16" with blower and power plant. Set up and running. Belt driven 5 side heads. On Babbit. Good shape older 454. Rich Schneider, N15880 Tower Road, Park Falls, WI 54552 (715) 762-4642.

Services

G & G Reconditions, Montgomery hog teeth, anvils and rings, zeno grinding machine cutter. New to G & G hydraulic repair, pumps, cylinders and gates hose. Contact G & G, 2525 Westbrook, Magnolia, OH 44643, Phone (330) 866-9764, FAX (330) 866-5225 E-mail hgg9407@oal.com Website: http://www.GG Repair.com

Custom Sawing, Contact Lloyd Fiseher, Pella, WI (715) 754-5602.

Dixon-Rusch Co., LLC, Antigo, WI is the manufacturer of the DIXON-line of sawmill and logging equipment plus we manufacture three different sizes of circular sawmills, two sizes of edgers. Our mills are made both stationary and portable plus also manufacture: log turners, belt and chain conveyors, rollcases, log turners, hydra-dogs. Pallet notches, slab edgers, debarkers, multiple saw trimers, custom built decks, small and medium size hydraulic loaders, trailers. We are now manufacturing a deer loader (which every deer hunter should have). Rush Equipment Sales is our local dealers, but we are seeking dealers in other areas. Inquire DIXON-RUSCH CO., LLC, 400 Rusch Road, Antigo, WI 54409, Phone (715) 627-4361.

WANTED TO BUY

Timber and Forest

Basswood logs ranging from 5" to diameter of up to 12" and 8 feet long, these logs have to be hand cut only from November through March. Please call Mark Kreul for more specifications. Walnut Hallow Farm, (608) 935-2341 Ext. 351, FAX (608) 935-3713, E-mail kreulm@walnuthollow.com

Black locust and yellow locust, 8, 10, 12-14-16, 10 inch and up. Also cider logs 6 inch and up. F&N Mills, Boscobel, WI, 53805, (608) 537-2306

Equipment

Employment

Head Sawyer for band saw with an understanding of hardwood lumber grades and log quality. Contact Thomas Zupfer at Harris Lumber thomas@harrislumber.com (262) 548-6040 ext. 165, FAX (262) 548-6046

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If you want to list items, fill in the form below:

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The Wisconsin Department of Natural Resources reserves the right to edit all items included and accepts no responsibility for the accuracy of description or for the commercial integrity of the persons or firms making offers in this Bulletin.

If you wish to use the facilities of the Bulletin, forward a letter, post card or form on page 11 with detailed description of your "wanted" or "for sale" items. All forest products (stumpage, logs, pulpwood, posts, poles, trees and lumber, etc.) and services (custom sawing, custom kiln drying and tree planting, etc.) may be listed. Please be sure your full name, address (including zip code), telephone number accompany your listing, there is no cost for listing any items. If you want items repeated in the next issue, send in a written request. If you have comments about the Bulletin or have suggestions on its content, write to: Forest Products Specialist, 3911 Fish Hatchery Road, Fitchburg, WI 53711, phone (608) 231-9333 FAX (608) 275-3338.

DEADLINE FOR ITEMS TO BE LISTED IS THE 20TH OF: FEBUARY, APRIL, JUNE, AUGUST, OCTOBER, and DECEMBER.

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